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ASE PHILOSOPHY

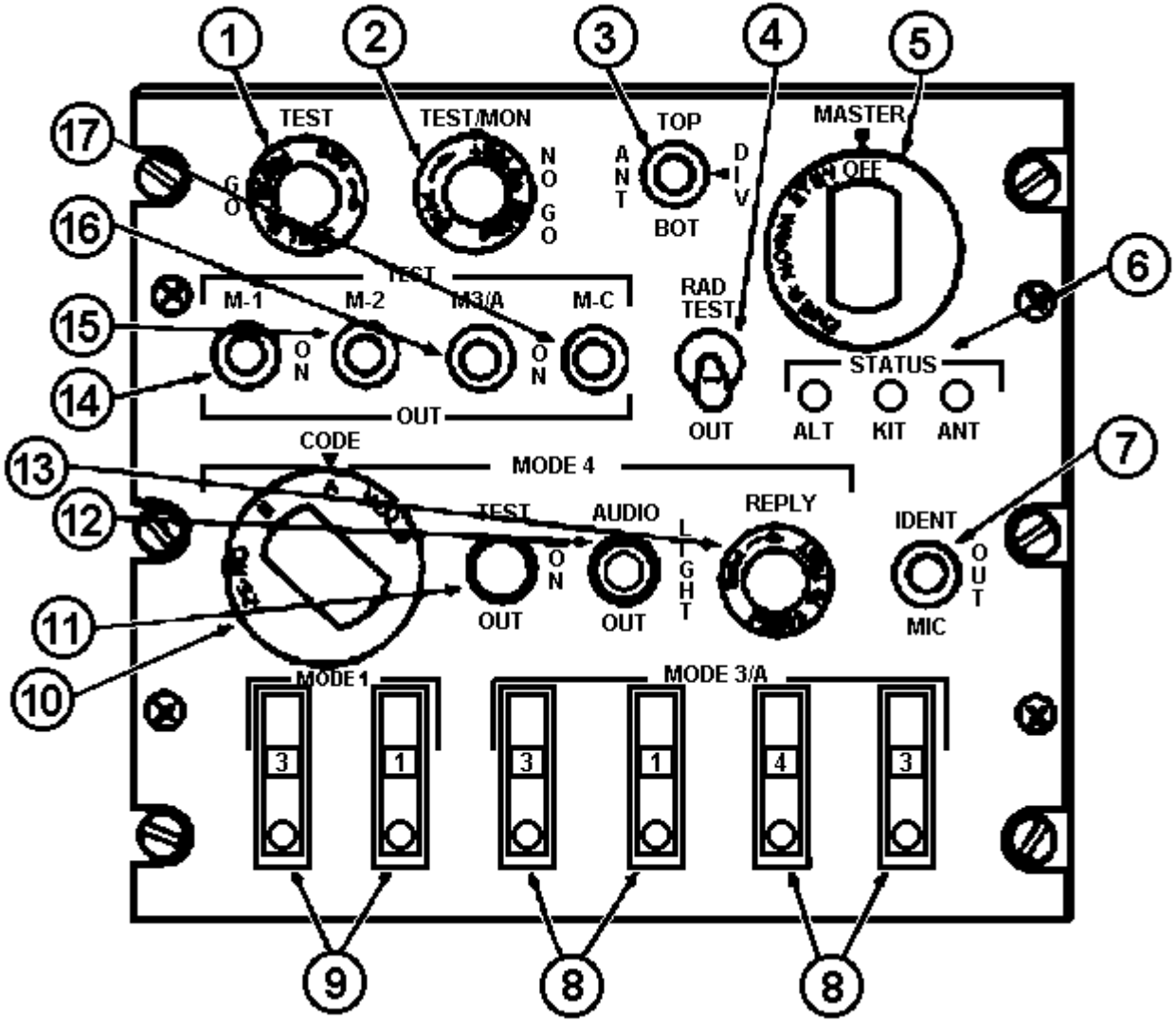
The survival of an aircraft operating in a hostile environment depends upon many diverse factors such as: The design of the aircraft; skill and experience of the crew; armament carried; on-board countermeasures and communications equipment; off-board supporting systems; and tactics employed. The cost of modern aircraft weapon systems, coupled with the requirement that the system be effective, makes it imperative to consider the aircraft's survivability throughout the life

Survivability is a state of mind which musters together every ounce of cunning and resourcefulness possible. These attributes have been used throughout history with varying degrees of effectiveness. There was a time when the weapons' threat had a large degree of human error involved in its accuracy, and it could, therefore, be defeated with primitive countermeasures. However, the aviator today operates in a highly lethal environment of extremely mobile combined air and ground threats. The aviator must be provided with the latest countermeasures, communications and survival techniques available, not only to survive, but to stay and fight. The cunning and resourcefulness have not gone by the wayside, but have simply taken on new dimensions which involve greater man/machine interfaces.

The Army capitalizes on new aircraft production, production conversion programs and cyclic overhauls to provision the aircraft to receive the latest ASE and communications equipment. These offer the most cost effective approaches for the incorporation of ASE and avionics equipment, and they have the least impact on the operational readiness of the aviation units. However, time is our worst enemy. Our attack and assault aircraft fleets in the field today face a "smart" threat which can detect, track and destroy through a series of automated events. Neither time nor funding is available to repeatedly bring these aircraft back to depot level facilities to install ASE and avionics provisions. In those situations where field retrofit of aircraft is required in order to provide survivability protection in a timely manner, the retrofit is made using U.S. Army Materiel Command contractor teams to lessen the impact on organic forces. Although the field retrofit strategy is a bitter pill to swallow

Although the ASE and avionics techniques and technologies must be properly safeguarded, training can not be neglected. ASE and avionics equipment must be part of a regular and sustained training program so that its operation during employment becomes second nature to the aircrew, and its maintenance becomes routine to the ground crews. Experience has taught the Army an important lesson of planning today for tomorrow. On a list of priorities for day-to-day operations, ASE and avionics equipment may not rank high in priority due to the remoteness of hostilities. However, without the constant exercise of the man/machine interface which turns the deliberate and studied moves into reflexes, the Army aviator has little hope on the battlefield of tomorrow.

ASE and avionics equipment give us the definite edge on the battlefield over the threat systems. However, the effectiveness of this edge is due, in large measure, to the classified nature of the equipment. Specific information relating to ASE and avionics techniques and technologies employed by these systems is strictly limited. ASE and avionics equipment must be safeguarded to a degree sufficient to preclude any reasonable chance of theft, compromise, sabotage, tampering or access by unauthorized



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AN/APX-100 CONTROL PANEL

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